

Title (en)  
DUMP TRUCK TIP-OVER SAFETY DEVICE

Title (de)  
SICHERHEITSVORRICHTUNG ZUR VERHINDERUNG DES ÜBERKIPPENS EINES KIPPLADERS

Title (fr)  
DISPOSITIF DE SÉCURITÉ CONTRE LE BASCULEMENT D'UN CAMION BENNE

Publication  
**EP 2511131 B1 20180418 (EN)**

Application  
**EP 10836032 A 20101209**

Priority  
• JP 2009280709 A 20091210  
• JP 2010072133 W 20101209

Abstract (en)  
[origin: WO2011071112A1] A tip-over safety device, for a dump truck comprising a bed (3) and hoist cylinders (5), comprises a loaded weight estimation unit (32) that estimates the load weight upon the bed; a chassis moment of rotation computation unit (33) that computes the moment of rotation of the chassis (Mb) that arises from the movement of the load when the load is ejected; a reference moment computation unit (34) that assigns moment of rotation that is less than or equal to the tip-over threshold moment (MI), which is the smallest moment of rotation required to lift the front wheels (1) off the ground, to the reference moment (Ms); a determination unit (35) that determines whether the moment of rotation of the chassis (Mb) exceeds the reference moment (Ms); and a display device (37) that notifies the driver that there is a strong probability of a tip-over, if it is determined that the moment of rotation of the chassis (Mb) has exceeded the reference moment (Ms). It is thus possible to avoid dump trucks tipping over as a result of dumping their loads all at once.

IPC 8 full level  
**B60P 1/04** (2006.01); **B60P 1/28** (2006.01)

CPC (source: EP US)  
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